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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/008,825

11/13/2001

Michael J. Piatt

SDP277 PA

8578

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7590

10/24/2005

BETH READ

PATENT LEGAL STAFF

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EXAMINER

BRINICH, STEPHEN M

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/008,825	Applicant(s) PIATT ET AL.	
	Examiner Stephen M. Brinich	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8 and 11-20 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 9 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.



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10-008-825

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER
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20050930

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

UK

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 15, line 10, it is unclear whether the phrase "that show high variation from one curve to a next curve" refers to the preceding recitation "multiple parameter curves" or the preceding recitation "selecting at least one point".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-5, 8, 11-12, & 14 are rejected under 35

U.S.C. 102(e) as being anticipated by Li et al (US 6431679).

Re claims 1 & 14, Li et al discloses (Figure 11; column 8 , line 62 - column 10, line 18) a print calibration system in which a test pattern is printed (1124), image intensity data is gathered from the test pattern (1132), the gathered data is compared to a plurality of tone scale transformations (1156), and a final tone scale transformation is selected and used to provide a tone scale for use in printing (1164, 1172).

Re claim 2, Li et al discloses (column 3, lines 58-62) the input of data indicating the low and high ink volume levels bounding the range of ink drop volumes available from a given print head.

Re claims 3-5, Li et al further discloses (Figure 9) that the measured image intensity data is gathered from a test pattern having multiple inking levels ranging from maximum to minimum.

Re claim 8, Li et al further discloses (column 9, lines 22-45) the use of plural fitting parameters for a tone scale transformation.

Re claim 11, Li et al further discloses (Figure 8; column 6, line 60 - column 7, line 59) that parameters are determined

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by original calibration measurements of transforms using a variety of print heads.

Re claim 12, Li et al further discloses (column 9, line 30) the use of a polynomial function of fitting parameters.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al.

Re claim 13, Li et al does not specify the use of a spectrophotometer as the scanning means for scanning the test print.

At the time of the invention, the use of a spectrophotometer as the particular light sensing device used to scan the test print would have been a substitution of equivalents of a type judicially recognized as obvious to one of ordinary skill in the art if the reason for the selection of one

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equivalent or another was not to solve an existent problem (*In re Ruff*, 118 USPQ 343).

Allowable Subject Matter

7. Claims 6-7 & 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 15-20, insofar as they are understood, would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

9. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 6 & 9, the art of record does not teach or suggest the recited determination of image intensity data ratios in conjunction with the recited calibration by measuring a test pattern and comparing the measurement results to a set of tone scale transformations.

Re claim 7, the art of record does not teach or suggest the recited derivation of a tone scale from a single inking level and a known maximum ink tone value in conjunction with the recited calibration by measuring a test pattern and comparing the measurement results to a set of tone scale transformations.

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Re claim 10, the art of record does not teach or suggest the recited individual selection of values for each of the recited fitting parameters for a known system and known substrate in conjunction with the recited calibration by measuring a test pattern and comparing the measurement results to a set of tone scale transformations.

Re claim 15 (and dependent claims 16-20), the art of record does not teach or suggest the recited plotting of coefficients of multiple parameter curves as functions of a value of selected points in a plurality of multiple parameter curves that show high variation from one curve to a next curve in conjunction with the recited calibration by measuring a test pattern and comparing the measurement results to a set of tone scale transformations.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hadley et al, Dilling, Degani et al, Wu et al, VanDuyn et al, and Negishi disclose further examples of printer calibration.

11. Any inquiry concerning the contents of this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 571-272-7430.

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Any inquiry relating to the status of this application or proceeding or any inquiry of a general nature concerning application processing should be directed to the Tech Center 2600 Customer Service center at 571-272-2600 or to the USPTO Contact Center at 800-786-9199 or 703-308-4357.

The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 571-272-7437.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 571-273-8300 (as of July 15, 2005).

Hand-carried correspondence may be delivered to the Customer Service Window, located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314.


Stephen M Brinich
Examiner
Art Unit 2624

smb
September 30, 2005